CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.08/SVB/WMM/Gradation/2014-15

21.08.2014

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **M/s. Sri. Vinayaka Builders**, Contractor, Bangalore.

Name of Work : Asphalting to Roads and Improvements of Drains in Balaji Layout surroundings in Ward No.08 (Kodigehalli), BBMP, Bangalore.

Reference : AEE/K/WO/61/2014-15 Dated: 17.08.2014

Date of Testing : 21.08.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **26300**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	990	990	3.8	96.2	95-100
22.4	6545	7535	28.7	71.3	60-80
11.2	6150	13685	52.0	48.0	40-60
4.75	4375	18060	68.7	31.3	25-40
2.36	3280	21340	81.1	18.9	15-30
0.600	2485	23825	90.6	9.4	8-22
0.075	2150	25975	98.8	1.2	0-8

Note:

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2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 30 days from the date of testing.

Civil-Tech Consultants & Engineers Bangalore

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಕೊಡಿಗೇಹಳ್ಳಿ ಉಪವಿಭಾಗ
ಯಲಹಂಕ ವಲಯ, ಬಿ.ಬಿ.ಎಂ.ಪ
ಬೆಂಗಳೂರು - 560092

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

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Job No.: CTCE/BBMP/W.No.08/SVB/SDBC/Bit/2014-15 25.09.2014

BITUMEN CONTENT DETERMINATION OF SEMI DENSE BITUMINOUS CONCRETE MIX AS PER IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	**M/s. Sri. Vinayaka Builders,** Contractor, Bangalore.
NAME OF THE WORK	Asphalting to Roads and Improvements of Drains in Balaji Layout surroundings in Ward No.08 (Kodigehalli), BBMP, Bangalore.
REFERENCE	AEE/K/WO/61/2014-15 Dated: 17.08.2014
SAMPLE I/D	Roads and Drains in Balaji Layout Ward No.08
DATE OF TESTING	25.09.2014

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	476.5	476
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	23.5	24.00
7. Bitumen content in %	4.70	4.80
8. Average	**4.75**	

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Job No.: CTCE/BBMP/W.No.08/SVB/SDBC/Bit/2014-15 25.09.2014

GRADATION DETERMINATION OF SEMI DENSE BITUMINOUS CONCRETE MIX AS PER IS2386 & IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	**M/s. Sri. Vinayaka Builders,** Contractor, Bangalore.
NAME OF THE WORK	Asphalting to Roads and Improvements of Drains in Balaji Layout surroundings in Ward No.08 (Kodigehalli), BBMP, Bangalore.
REFERENCE	AEE/K/WO/61/2014-15 Dated: 17.08.2014
SAMPLE I/D	Roads and Drains in Balaji Layout Ward No.08
DATE OF TESTING	25.09.2014

GRADATION AFTER EXTRACTION

Sieve Size in mm	Trail 1				Specified Limits as per MORTH specification table 500-15 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
13.2	0	0	0	100	100
9.5	41.52	8.71	8.71	91.29	90-100
4.75	261.5	54.88	63.59	36.41	35-51
2.36	53.48	11.22	74.82	25.18	24-39
1.18	46.39	9.74	84.55	15.45	15-30
0.3	25.87	5.43	89.98	10.02	9-19
0.075	25.32	5.31	95.29	4.71	3-8

Sieve Size in mm	Trail 2				Specified Limits as per MORTH specification table 500-15 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
13.2	0	0	0	100	100
9.5	42.58	8.95	8.95	91.05	90-100
4.75	253.4	53.24	62.18	37.82	35-51
2.36	58.53	12.30	74.48	25.52	24-39
1.18	35.26	7.41	81.88	18.12	15-30
0.3	32.15	6.75	88.64	11.36	9-19
0.075	33.87	7.12	95.75	4.25	3-8

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M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com

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Job No.: CTCE/BBMP/W.No.08/SVB/CUBE/2014-15 15.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	: **M/s. Sri. Vinayaka Builders,** Contractor, Bangalore.
Name of the work	: Asphalting to Roads and Improvements of Drains in Balaji Layout surroundings in Ward No.08 (Kodigehalli), BBMP, Bangalore.
Reference	: AEE/K/WO/61/2014-15 Dated: 17.08.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	18.08.2014	15.09.2014	8.263	336.2	14.94
2	18.08.2014	15.09.2014	8.347	353.7	15.72
3	18.08.2014	15.09.2014	8.516	362.5	16.11

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1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 15 days from the date of testing.

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M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

#23/14, 7th Cross, 3rd Stage, 4th Block, Shakthi Ganapathi Nagara, Basaveshwaranagar, Bangalore-79.
Tele Fax : 23223227, Website : www.civiltechconsultants.com
E-mail : vishwanath.ia@civiltechconsultants.com / info@civiltechconsultants.com